

REMARKS/ARGUMENTS

Claims 1-7 were pending in the present application before the amendment as set forth above. By the amendment, claim 1 is amended, and claim 6 is canceled.

In the April 1, 2009 Office Action, claims 1-5 were rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. No. 7,146,410 to Akman (hereinafter “Akman”). Claims 6 and 7 were rejected 35 U.S.C. §103(a) as being unpatentable over Akman in view of Non Patent Literature “RFC 3535 - Gateway Control Protocol Version I” to Network Working Group (hereinafter “NWG”).

Applicant very appreciates the Examiner’s careful review of the instant application.

In response, as set forth above, claim 1 has been amended for better form, and claim 6 has been canceled.

Support for the amendments can be found in claim 6, and paragraph from 7, lines 33 and 34 through page 8, lines 1-5 of the specification, as originally filed. Applicant asserts that no new matter is added.

Any amendments to the claims not specifically referred to herein as being included for the purpose of distinguishing the claims from cited references are included for the purpose of clarification, consistence and/or grammatical correction only.

It is now believed that the application is in condition for allowance at least for the reasons set forth below and such allowance is respectfully requested.

The following remarks herein are considered to be responsive thereto.

Claim Rejections Under 35 U.S.C. §102

In the Office Action, claims 1-5 were rejected under 35 U.S.C. §102(e) as being anticipated by Akman. Applicant respectfully traverses the rejections made by the Examiner at least for the reasons set forth below:

As set forth above, claim 1 has been amended to recite the limitations of claim 6, now canceled claim 6, where the limitations include the feature of the media gateway controller sending a subtract signaling for releasing media stream port to the media gateway after calling finishes. Akman is silent on the feature as pointed out by the Examiner in the Office Action. Accordingly, amended claim 1 is patentable over Akman.

Furthermore, even if Akman and NWG were combined, the combination of Akman and NWG still would not teach or suggest *all* features of amended claim 1 of the present invention.

(a) As for the feature “for a MEGACO signaling that is unconcerned with a media stream port of the media gateway, the agent equipment directly forwarding according to message identifier in the signaling” recited in amended claim 1, it is pointed out in this Office action that Akman discloses “the Network Address Translation (NAT) is for translating the IP address of the media gateway included in the control protocol message (Col. 2, lines 12-15)”; “after receiving the Service Change message, the firewall/NAT 160 then inspects the message and changes the IP address of the MG from {10.12.2.2} to [175.17.4.1]; the change is entered in the NAT table maintained by the firewall/NAT 160 (Col. 4, lines 25-41)” and “a media gateway sends a MEGACO off-hook message to a media gateway controller (Col. 5, lines 6-34; Fig. 3A)”. It is disclosed in NWG that “an off-hook message is an event descriptor that has a default stream of 0 in order to indicate that the event to be detected is not related to a particular media stream.”

Obviously, the operation mechanism of firewall/NAT 160 is based on translation of IP addresses of MG in different networks, and such translation is based on NAT table. Before the interaction between the MG and MGC, all IP addresses of the MG in other networks are saved in the NAT table in advance. If an IP address of the MG in private network side is changed, service change message 210 will be sent to firewall/NAT160 which changes the IP address of the MG in the private network in the NAT table maintained by it. When off-hook message is sent, the corresponding MG is identified by the NAT table to forward the message.

However, in amended claim 1 of the present invention, for a signaling that is unconcerned with a media, the agent equipment directly uniquely identify the MG using message identifier to forward response signaling to the MG. Apparently, distinguishing different MG using message identifier is in order to ensure correct forwarding of the response signaling.

It is obvious that *the forwarding manner by using message identifier in amended claim 1 of the present invention is patentably different from the address translation manner by using NAT table in Akman.*

Compared with the manner in Akman that requires pre-maintenance of NAT table and configuration in the firewall/NAT160, the method in claim 1 of the present invention only uses

message identifier that uniquely identify the MG, rather than requires pre-configuration on the MG information, thus service management is highly facilitated, and it is ensured that the MGC and MG in different networks can implement transparent traversing.

(b) As for the feature “*if the MEGACO signaling is a signaling for creating a connection, further recording on the agent equipment a termination ID of the media gateway*” recited in amended claim 1 of the present application, applicant respectfully submits Akman does not disclose, teach or suggest the feature. For example, it is disclosed in Fig. 3A that “box 345, ‘ADD’ signaling with the domain of the MGC and the IP address is forwarded to the MG”; however, in claim 1 of the present invention, termination ID *of the MG* is used to find media forwarding port rather than to represent domain and the IP address *of the MGC*. Therefore, termination ID in claim 1 of the present invention plays different functions with the domain and the IP address of the MGC in ‘ADD’ signaling in Akman, and they are not the same parameter.

Furthermore, in Akman, the operation mechanism of firewall/NAT 160 is based on translation of IP addresses of MG in different networks, and such translation is based on NAT table. Before the interaction between the MG and MGC, all IP addresses of the MG in other networks are saved in the NAT table in advance. If an IP address of the MG in private network side is changed, service change message will be sent to firewall/NAT160 which changes the IP address of the MG in the private network in the NAT table maintained by it. Therefore, Akman distinguishes different MG using the corresponding relation of the pre-configured IP addresses of the MG in two networks to implement forwarding across networks.

However, in amended claim 1 of the present invention, the media forwarding port is distinguished by termination ID to implement forwarding across networks. Therefore, Akman does not disclose, teach or suggest the feature that plays the same function as the termination ID in amended claim 1 of the present invention.

As stated above, the feature of amended claim 1 of the present invention ensures that the MGC and MG in different networks can implement transparent traversing by using the termination ID that identifies media forwarding port.

(c) As for the feature “a media gateway requesting register to the media gateway controller, and the agent equipment dynamically recording message identifier of the media gateway to be registered and network address by according to the register message” recited in

amended claim 1 of the present application, as stated above, the operation mechanism of firewall/NAT 160 in Akman is based on translation of IP addresses of the MG in different networks, and such translation is based on NAT table. Firewall/NAT 160 puts the messages associated with the MG including the domain name, IP addresses, etc., into NAT table at any moment in the initial configuration. However, in amended claim 1 of the present invention, dynamically recording the MG attribute information required in the initial interaction without requiring pre-configuration of any message associated with the MG lets alone the pre-configuration of NAT table. All the messages required to be used are sent along with the message identifier of the signaling at the same time as service interaction, and dynamic record of the agent equipment ensures the flexible use, thus the service management is highly facilitated.

(d) As for the feature “the agent equipment receiving the MEGACO signaling for establishing or modifying media stream port sent to the media gateway from the media gateway controller, establishing or modifying corresponding media stream forwarding port and forwarding table on the agent equipment” recited in amended claim 1 of the present application, in Akman, NAT table of firewall/NAT 160 is preconfigured and maintained ceaselessly. Before the interaction between the MG and MGC, the IP addresses of the MG in other networks are pre-saved in the NAT table. However, the forwarding table and forwarding port in claim 1 of the present invention are established in real time on the agent equipment after the MGC sent singling for creating connection, rather than are pre-configured.

Additionally, the signaling for establishing or modifying a connection in amended claim 1 of the present application is initiated by the MGC. However, the signaling for modifying in Fig. 3A and other figures in Akman pointed out in this office action is initiated by the MG; and the NAT table is pre-configured in the firewall/NAT 160 rather than is created in real time, thus the signaling for establishing is not discussed in Akman.

(e) As for the feature “the media gateway controller sending a subtract signaling for releasing media stream port to the media gateway after calling finishes, the agent equipment releasing corresponding media stream forwarding port after receiving the signaling, and forwarding the signaling to corresponding media gateway”, recited in amended claim 1 of the present invention, as pointed out in the Office Action, the feature is not disclosed, taught or suggested by Akman. However, according to the feature, it can be seen that the forwarding port

and forwarding table are required to be reclaimed dynamically after the transaction between the MGC and MG, which further indicates, in combination with the technical feature of creating signaling and establishing a forwarding port and a forwarding table as discussed above, that the forwarding port and forwarding table are created and reclaimed in real time and the use of the forwarding port and forwarding table is dynamic and is not pre-configured. It also proves in the other side that the forwarding port and forwarding table established and used and the step of establishing and using in claim 1 of the present invention are different from the firewall/NAT 160 and the NAT table disclosed in Akman.

Compared with the manner in Akman that requires pre-maintenance of the NAT table and configuration in firewall/NAT, in the method of claim 1 of this invention, the use of the forwarding port and forwarding table is completed dynamically during the entire process without requiring pre-configuration of the information of the MG, thus the complexity of call services of the MGC is reduced and the utilization rate of resources are increased.

(f) Additionally, it can be known from the part Background of the description in the present invention that the technical problem to be solved by the technical solution of the present invention is how to overcome that the traditional signaling agent realizing method based on NAT can not implement transparent traversing and increases the complexity of call services of the MGC.

Thus, a method distinguishing from NAT is provided that, as the amended technical solution in claim 1 of the present invention, using message identifiers and dynamically using the forwarding port and forwarding table. However, it is inevitable to partially use address change in traversing networks no matter the technical solution in claim 1 of this invention or the solution of NAT in the traditional manner. The applicant believes that the Examiner can understand “not all solutions that use address translation are similar”.

Based on the above reasons, Akman does not disclose the corresponding technical features in claim 1 of the present invention; additionally, the technical features are not conventional means for a person having ordinary skill in the art. Therefore, Akman cannot solve the technical problem to be solved by the technical solution of claim 1 in the present invention: it requires no configuration of the particular information of the MG on the agent equipment to

thereby implement transparent traversing between different networks and reduce operation maintenance cost.

Applicant submits that Akman can not serve as the basis on which technical teaching is brought to the technical solution of claim 1 in the present invention. It is obvious that a person having ordinary skill in the art can not obtain the technical solution of claim 1 in the present invention without creative work. Therefore, amended claim 1 of the present invention is non-obvious over Akman and RFC 3015-Megaco Protocol Version 1.0. Accordingly, amended claim 1 of the present application is patentable also under 35 U.S.C. §103(a) over Akman and NWG.

Claims 2-5, which directly or indirectly depend from independent claim 1, are also patentable at least for this reason.

Claim Rejections Under 35 U.S.C. § 103

In the Office Action, claims 6 and 7 were rejected 35 U.S.C. §103(a) as being unpatentable over Akman in view of NWG.

Claim 6 is canceled, which makes the rejection moot.

Claim 7 is dependent from now allowable amended claim 1, and thus patentable as well, at least for this reason.

CONCLUSION

Applicant respectfully submits that the foregoing Amendment and Response place this application in condition for allowance. If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, please call the undersigned at 404.495.3678. No fee is due, but the Commissioner is hereby authorized to charge any petition fee under 37 CFR 1.17(f), (g) or (h) or any deficiency of fees and credit of any overpayments to Deposit Account No. 50-3537.

Respectfully Submitted,

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